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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/280,518	04/05/1999	KENSUKE FUJIWARA	32739M008	5926

7590 03/21/2002

BEVERIDGE DEGRANDI WEILACHER & YOUNG
SUITE 800 1850 M STREET N W
WASHINGTON, DC 20036

EXAMINER

YOCKEY, DAVID F

ART UNIT	PAPER NUMBER
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2861

DATE MAILED: 03/21/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/280,518

Applicant(s)

FUJIWARA, KENSUKE

Examiner

David Yockey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-5 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The original disclosure fails to provide support for repeating steps of exposing a surface portion of the photoreceptor surface with laser light having an intensity corresponding to each of said second plurality of intensity values to provide exposed photoreceptor surface portions and detecting the potential of each of the exposed photoreceptor surface portions without repeating the step of dividing a predetermined laser intensity value to provide a second range of intensity values. Each pass through the loop in the process illustrated in Fig. 1 shows repeated performance of step S7, in which a region of laser intensities is further finely divided in each execution of the step as discussed at page 11, line 23 through page 12, line 17.

Respons to Arguments

Applicant's arguments filed 09 January 2002 have been fully considered but they are not persuasive.

Upon reconsideration of the claimed subject matter, the claims are deemed to be clear as being directed to use of same second plurality of intensity values for each repetition of the repeating step in each of claims 1 and 2, as it is noted that step (i) of the second potential detecting step, in which the second plurality of intensity values is determined, is not repeated in each of the claims. Accordingly, the rejection under 35 USC 112, second paragraph is hereby withdrawn.

Further, upon reconsideration, it is noted that the claimed repeating step which repeats particular steps while omitting repetition of the dividing step constitutes new matter, as the dividing step (Step S7) is necessarily repeated in the originally disclosed invention.

With regard to page 2, lines 9-14 and page 5, line 21 through page 6, line 6 of Applicant's response, Applicant's willingness to amend the wording in the specification to incorporate language and to amend Figure 1 to support Applicant's interpretation of what is disclosed by the specification is appreciated. However, the Examiner must respectfully disagree with the suggestion that the underlying problem with the disclosure is merely unclear wording and/or illustration. It is respectfully submitted that recitation of "repeated operations of exposing photoreceptor surface portions to laser lights of a plurality of further finely divided laser intensities" clearly indicates further laser intensity divisions for each repetition as opposed to Applicant's position that such a recitation

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indicates that no further division is made for each repetition, and that amendment to the specification and Figure 1 in the manner suggested by Applicant would constitute introduction of new matter.

With regard to page 2, line 15 through page 3, line 9 of Applicant's response, it is agreed that photoreceptor surface potential drift is a well known phenomenon in the electrophotographic printing art.

With regard to page 3, lines 10-16 of Applicant's response, it is agreed that exposure position may vary and that environmental factors and exposure position contribute to variance in measured potentials.

At page 3, line 17 through page 4, line 8 of Applicant's response, Applicant suggests that the use of the same interval in the repeating step would locate the optimal laser intensity value with a very high probability. The Examiner respectfully disagrees. This issue is pertinent in that the disclosed problem being solved is to make a residual potential correction in a shorter period of time, which an iteratively reduced interval subsequent potential detections would accomplish and which the Examiner holds is disclosed by the specification rather than a same interval for subsequent potential detections. While measured potentials may vary due to environmental factors and exposure position such variation is bound to be small over short periods of time, as environmental factors such as temperature and humidity ordinarily vary slowly, and differences due to exposure position are minor for a normal photoreceptor. As such, if the optimal intensity were not found coincidentally on the first pass, the use of a same

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interval in the repeating step would result in looping an indefinite and most likely long period of time with respect to the prior art method discussed in the specification.

In the aforementioned section of Applicant's response and at page 4, line 9 through page 5, line 6, it is suggested that the problem intended to be solved by the invention is the possibility that the target value will be missed due to drift in surface potential and that one of ordinary skill would interpret the specification as not providing increasingly narrow intensity intervals since such interpretation would purportedly increase possibility that the target value will be missed. The Examiner respectfully disagrees. At page 4, line 21 through page 5, line 9, the original specification indicates that the conventional residual potential correction will reach the solution, although much labor and time is required and a larger number of iteration times are required before the final solution is reached. Page 5, lines 11-13 of the original specification indicate that an object of the invention is to provide a laser intensity adjusting method capable of readily making a residual potential correction in a shorter period of time. No discussion is found concerning drift in surface potential nor regarding missing a target value, and nothing is found in the original disclosure to indicate that Applicant had contemplated a solution to the problem of the possibility that a target value would be missed due to drift in surface potential. In view of the fact that the specification clearly refers to "repeated operations of exposing photoreceptor surface portions to laser lights of a plurality of further finely divided laser intensities" (e.g. page 6, line 23 through page 7, line 4), with "further" clearly indicating that, in each repetition, the laser intensities are divided finely

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to a greater degree or extent, one of ordinary skill would interpret the specification as providing a narrowing of intervals in accordance with the further fine divisions.

At page 5, lines 7-20, Applicant refers to example values in the paragraph bridging pages 10 and 11, and on page 12 of the specification and states "the specification gives no further examples of different interval of fine intensity values because no different interval is used until the final maximum intensity has been obtained." This argument is not persuasive. The paragraph bridging pages 11 and 12 indicates that, in Step S7, laser intensities at fine intervals are selected in the vicinity of the laser intensity for the patch (exposed in step S4) of which potential is the nearest to the desired preset potential. Page 12, lines 5-10 clearly state that a region of intensities is "further finely divided." The steps S4-S7 are then repeated, including a region being "further finely divided" in step S7. The clear disclosure of a further fine division of intensities cannot be ignored merely because the specification does not provide example values for each iteration in the disclosed process.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Yockey whose telephone number is (703) 308-3084. The examiner can normally be reached on weekdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (703) 308-3126. The fax phone numbers

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for the organization where this application or proceeding is assigned are (703) 305-3431 for regular communications and (703) 305-3431 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

A handwritten signature in black ink, appearing to read "David F. Yockey", written in a cursive style.

DAVID F. YOCKEY
PRIMARY EXAMINER

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March 19, 2002